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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,687	10/30/2001	John B. Taylor	396421	5708

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EXAMINER

CHOI, FRANK I

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 12/18/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/017,687

Applicant(s)

TAYLOR, JOHN B.

Examiner

Frank I Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed on 10/30/01 and 9/10/2002 fail to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because a number of the references do not have publication dates. The other references having publication dates were considered, however, the references lacking publication dates have not been considered as to the merits. Examiner notes that the Merck Index reference was considered, however, Examiner requests that Applicant provide the page number(s). Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Objections

Claims 1-6,10-23,27-38,39-43,45-48, 50-53 are objected to because of the following informalities: Claims are to be complete in themselves. See MPEP 2173.05(s). Applicant's claims make reference to rows 4 and/or 5 of the periodic table of the elements, as such, one would have to look up the periodic table to find which elements would fall within the scope of the claim. Examiner suggests that Applicant set forth the elements both in the claims and the Specification and address any new matter issues.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-34 use the term “metal” in the same claim to represent different types of metals. Examiner suggest that Applicant used “the metal of said metal chelate” instead of “said metal is a metal” or “said metal constituent”.

Claims 2,19 recite the limitation "aqueous solution". There is insufficient antecedent basis for this limitation in the claims. Examiner suggests inserting “aqueous solution” in claims 1, 18.

Claims 10, 27, 39, 44, 49, 54 recite the limitation “chelate constituent” There is insufficient antecedent basis for this limitation in the claims. Examiner suggests using “the chelate of said metal chelate” instead.

Claims 2, 3, 19, 20 recites the limitation “wherein said metal chelate is present in said aqueous solution in amount equal to from about . . . pounds AI per acre” which renders the claim indefinite as limitation refers to application rate and does not appear to indicate how much is present in the aqueous solution. Further, the claims claim both a product and the method steps of using the product which renders the claim indefinite. See MPEP 2173.05(p)(II).

Claims 38, 43,48, 53 recites the limitation “wherein said metal chelate is present in said aqueous solution in amount such that the metal is applied to the plants at a rate of from about . . . pounds AI per acre” which renders the claim indefinite as limitation refers to application rate and does not appear to indicate how much is present in the aqueous solution. Examiner suggests that

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Applicant use "wherein said metal chelate is applied to the plants as a rate of from about . . . pounds AI per acre".

Claims 11, 28 recite $(\text{NH}_3)_2\text{HPO}_3$, $(\text{NH}_3)_2\text{HPO}_4$ and $(\text{NH}_3)_3\text{PO}_4$ which renders the claims indefinite as there is insufficient antecedent basis for the limitation in the claim. The compounds do not fall within the scope of the formulas in claims 1 and 18.

Claims 1,3,6-9,11-14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: aqueous solution. The Specification appears to indicate that the composition needs to be in an aqueous solution (Specification, Pg. 14).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,736,164, Claims 1-5 of U.S. Patent No. 5,800,837 or Claims 1-49 of U.S. Patent No. 6,338,860, each in view of Ducret et al.

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(U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop.

U.S. 5,736,164 claims a method of controlling fungal disease in plants comprising applying potassium phosphates and potassium phosphonates (Claims 1-8).

Ducret et al. (U.S. Pat. 4,139,616) teach that phosphonate salts are effective fungicides (Column 1).

Fenn et al. (1984) teaches that phosphonate and phosphorous acid are effective against Phytophthora (See entire document).

Reuveni et al. (Plant Pathology 1995) teaches the potassium phosphates, optionally with KOH, are effective fungicides and fertilizers (See entire document).

Scher teaches FeEDDHA is effective against Fusarium wilt (Column 9, lines 40-61).

Supa Crop (1990) teaches that a composition containing phosphates, phosphate and chelated metals of iron, manganese, zinc, copper provides protection against Phytophthora and Downy Mildew.

The difference between the claims of the U.S. Pat. Nos. 5,736,164, 5,800,837 and 6,338,860 and the claimed invention is that the said patent does not claim the combination of heavy metal chelate and phosphonate and phosphate. However, the prior art amply suggests the same as it is known in the art to combine phosphonates and phosphates, and to combine the same with metal chelates.. As such it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the claims said patent with the expectation that the combination would exhibit increased effectiveness.

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Therefore, the claimed invention, as a whole, would have been an obvious modification of the claims of said patent to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claims 1-54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,2 of U.S. Patent No. 6,139,879 in view of Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop (1990).

U.S. 6,139,879 claims a method of controlling fungal disease in plants comprising applying heavy metal chelates (Claims 1,2).

Ducret et al. (U.S. Pat. 4,139,616) teach that phosphonate salts are effective fungicides (Column 1).

Fenn et al. (1984) teaches that phosphonate and phosphorous acid are effective against Phytophthora (See entire document).

Reuveni et al. (Plant Pathology 1995) teaches that potassium phosphates, optionally with KOH, are effective fungicides and fertilizers (See entire document).

Scher teaches FeEDDHA is effective against Fusarium wilt (Column 9, lines 40-61).

Supa Crop (1990) teaches that a composition containing phosphates, phosphate and chelated metals of iron, manganese, zinc, copper provides protection against Phytophthora and Downy Mildew.

The difference between the claims of U.S. Pat. 5,736,164 and the claimed invention is that the said patent does not claim the combination of heavy metal chelate and phosphonate and

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phosphate. However, the prior art amply suggests the same as it is known in the art to combine phosphates, phosphates and metal chelates. As such it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the claims said patent with the expectation that the combination would exhibit increased effectiveness.

Therefore, the claimed invention, as a whole, would have been an obvious modification of the claims of said patent to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claim Rejections - 35 USC § 103

Examiner notes that the rejections herein are not intended to and do not apply to subject matter which was found to be allowable over the prior art in Patent Nos. 6,139,879, 6,338,860, 5,997,910, 5,800,837 and 5,736,164.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horriere et al. in view of in view of Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop (1990).

Horriere et al. teaches that phosphonates in combination with other fungicides, such as maneb and mancozeb show increased effectiveness (Column 2).

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Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop (1990) are cited herein for the same reasons as above and the are incorporated herein to avoid repetition.

The difference between the prior art and claimed invention is that the said prior art does not expressly disclose the combination of an EDDHA metal chelate, phosphonate/phosphite and phosphate. However, the prior art amply suggests the same as it is known in the art to combine phosphates, phosphates and metal chelates. As such it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the claims said patent with the expectation that the combination would exhibit increased effectiveness.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion


A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machines are (703) 308-4556 or (703) 305-3592.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (703) 308-0067. Examiner maintains a flexible schedule. However, Examiner may generally be reached Monday-Friday, 8:00 am – 5:30 pm (EST), except the first Friday of the each biweek which is Examiner's normally scheduled day off.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. José Dees, can be reached on (703) 308-4628. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (703) 308-1235 and (703) 308-0198, respectively.

FIC

December 16, 2002



JOHN PAK
PRIMARY EXAMINER
GROUP 1600

